U.S. Patent Application Serial No.: 10/517,025

Abstract

Automatic exposure adjustment control that is not affected by smear. An image pick-up device control system of an electronic shutter, a lens aperture and an automatic gain control.

Smear amount is calculated precisely even if weak smear phenomenon does not reach a saturation level. When smear is detected, a first electronic shutter speed and a first lens aperture value are measured and first color information integral values of red, green and blue are measured in a predetermine I color measurement area of an effective pixel region of an image pick-up unit. The electronic shutter speed is slowed to a predetermined amount to provide the same exposure as the exposure at the first electronic shutter speed and first lens aperture, and the lens aperture is narrowed only to that amount to measure the second color information integral values of the red, green and blue in the color measurement area. The smear amount is calculated from the color integral values of the red, green and blue.